

Impact Evaluation of Responsible Fatherhood Opportunities for Reentry & Mobility (ReFORM) in Appalachian Kentucky

Final Impact Evaluation Report for the Administration for Children and Families (ACF)

11/10/2020

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Recommended Citation:

Calvert, J. M., Winston, E., Seaver, R. & Webster, J. M. (2020). *Impact Evaluation of Responsible Fatherhood Opportunities for Reentry & Mobility (ReFORM) in Appalachian Kentucky*. Center on Drug and Alcohol Research, University of Kentucky.

Acknowledgements:

The authors thank the staff of Mountain Comprehensive Care Center, especially Christy Hicks and Thomas Hollyfield, for their assistance throughout the course of the evaluation and in the preparation of this report. Adam Dunn (Mathematica) provided important feedback throughout the development of this report, and Dr. Christopher McLouth (University of Kentucky) contributed his analytic expertise. The authors also thank the staff at Big Sandy Regional Detention Center, Floyd County Detention Center, and Kentucky River Regional Jail for allowing evaluation staff to interview and collect data from inmates at these correctional facilities. Finally, the authors express their gratitude to the more than 400 incarcerated fathers who agreed to participate in this evaluation.

Disclosure:

The authors have no conflicts of interest to disclose, financial or otherwise.

This publication was prepared under Grant Number 90FO0007 from the Office of Family Assistance (OFA) within the Administration for Children and Families (ACF), U. S. Department of Health & Human Services (HHS). The views expressed in this report are those of the authors and do not necessarily represent the views or policies of HHS, ACF, or OFA.

Structured Abstract: “Impact Evaluation of Responsible Fatherhood Opportunities for Reentry & Mobility (ReFORM) in Appalachian Kentucky”

Objective. Mountain Comprehensive Care Center (MCCC) received a grant from the Administration for Children and Families to implement the Responsible Fatherhood Opportunities for Reentry & Mobility (ReFORM) program to strengthen positive father-child engagement, improve employment and economic mobility opportunities, improve healthy relationships and marriage, and decrease barriers to successful community reentry for incarcerated fathers. An evaluation was performed to assess the implementation and impact of this program.

Study design. The evaluation used a matched comparison, quasi-experimental research design, which included an intervention group of incarcerated fathers who received MCCC’s ReFORM program services while in two regional jails and a comparison group of incarcerated fathers in a comparable regional jail who did not receive ReFORM services. Data were collected from participants at three timepoints: baseline, three months post-baseline, and six months after initial release from jail. At six months, the final analytic sample size was 211.

Results. An impact analysis did not demonstrate evidence for direct effects of MCCC’s ReFORM program on the selected outcomes: father’s satisfaction with their parenting role, employment, or being in a relationship six-months after release. Findings of the implementation analysis highlight MCCC’s success in implementing ReFORM services, including an emphasis on program fidelity for these services.

Conclusion. Although the impact analysis did not offer evidence for the effectiveness of the intervention, MCCC successfully delivered the ReFORM program to a total of 627 fathers who were incarcerated over a 5-year period, 201 of whom agreed to participate in the local evaluation. Fathers were provided with educational information and tools to use to strengthen their positive engagement with their children, enhance their employment and economic mobility, and improve the health of their relationships and marriage. In the future, MCCC may consider a more rigorous evaluation design (for example, a larger, randomized controlled trial) or selecting additional outcome measures that may be more sensitive to potential program effects.

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Impact Evaluation of Responsible Fatherhood Opportunities for Reentry & Mobility (ReFORM) In Appalachian Kentucky

I. Introduction

A. Introduction and study overview

Mountain Comprehensive Care Center (MCCC) in Prestonsburg, KY, was awarded a grant from the Administration for Children and Families (ACF) as part of the Responsible Fatherhood Opportunities for Reentry and Mobility (ReFORM) program to strengthen positive father-child engagement, improve employment and economic mobility opportunities, improve healthy relationships and marriage, and decrease barriers to successful community reentry. These intervention services were offered through two detention centers—Floyd County Detention Center and Big Sandy Regional Detention Center—located in rural Appalachian Kentucky.

Rural Appalachian Kentucky area is marked by high rates of poverty, among the highest in the U.S. (Census, 2020a), as well as educational attainment and employment levels that fall far below national averages (Pollard & Jacobsen, 2020). When compared to adults in the region, a higher percentage of children live in poverty, and a significant number live in single parent homes (Kids Count Data Center, 2020). Contributing to these living situations is the fact that Kentucky ranks first in incarcerations among a seven-state region (Vera Institute of Justice, 2020). As a result, many children are separated from a parent, most often the father, due to incarceration. Consequently, periods of incarceration may be an opportune time to intervene with fathers to develop skills that will strengthen their relationships with their children and partners during and after incarceration. Incarceration also provides an opportunity for job training to help fathers improve their employment and economic futures once released from jail.

Evaluations of fatherhood programs have shown that they can positively impact communication, psychological wellbeing, and other favorable behavioral outcomes. In a recent review of 44 fatherhood intervention studies, Henry and colleagues (2020) found that the interventions with the most robust findings addressed multiple domains of child rearing and included a focus on strengthening both father-child and father-coparent relationships. Of the reviewed studies, only eight examined interventions delivered to fathers in correctional settings. Among these, there was an evaluation study of the InsideOut Dad® program—one of the curricula used in MCCC's ReFORM program—implemented at three facilities in New Jersey (Block, Brown, Barretti, Walker, Yudt, & Fretz, 2014). Evaluation findings indicated the program was well-received by fathers and that positive changes occurred in program participants' knowledge, attitudes, and confidence as fathers. An increase in calling children on the telephone was also found; however,

other forms of contact (i.e. writing and in-person visits) did not appear to be impacted by the program.

No published evaluations of the other two curricula comprising MCCC's ReFORM program (Within My (Our) Reach and Makin' It Work) were found that delivered curricula in a correctional setting. However, two evaluations of the Within My Reach curriculum delivered to community samples were identified. Both found that participants thought the program was helpful and that they attained new relationship skills (Antle et al., 2013; Sparks, 2008), but neither of the evaluations included a comparison group, which limits the strength of these conclusions. The evaluation team did not identify published evaluations of the Makin' It Work curriculum.

MCCC's ReFORM program incorporated several components related to responsible parenting, economic stability, and healthy marriage and relationships. Responsible parenting activities included skills-based parenting education, dissemination of information regarding good parenting practices, one-on-one counseling regarding parenting issues, and encouragement and facilitation of financial support of participants' children. Economic stability activities included job readiness workshops, job training and educational assistance, and job search and placement assistance. Finally, healthy marriage/relationship activities included marriage and relationship education, conflict resolution skills training, financial literacy seminars, and counseling. Comprehensive case management and wraparound services also fostered program participation and success.

To ensure the effectiveness of MCCC's ReFORM program services, MCCC contracted with University of Kentucky Center on Drug and Alcohol Research to perform the evaluation, which was the first evaluation of MCCC's ReFORM program. The evaluation included two primary components: 1) consultation on the collection of ACF required Performance Measures to document program participant characteristics, program operations, enrollment and participation, and pre-test/post-test outcome measures; and 2) a quasi-experimental design study to examine the effectiveness of targeted services for fathers served by MCCC's ReFORM program.

Primary and secondary research questions for this evaluation are presented below. Section II of this report provides study design information, including sample and data collection details. Section III overviews the analytic methods used to evaluate MCCC's ReFORM program and describes the analytic sample, outcome measures, and baseline equivalence of the intervention and counterfactual conditions. Section V presents implementation and impact evaluation findings as well as estimation approaches. Finally, Section VI provides a discussion of evaluation findings. Evaluation limitations and opportunities for future research are highlighted.

B. Primary research questions

The study's primary research questions focus on gauging the intervention's effectiveness on three key outcomes related to parenting skills, healthy relationships, and economic stability activities. The study is registered at ClinicalTrials.gov (study identifier: NCT02860988). The primary research questions are the following:

1. Compared to the counterfactual condition, what is the impact of the intervention on parenting and co-parenting skills/behaviors, as measured by parental role satisfaction six months after release from incarceration?
2. Compared to the counterfactual condition, what is the impact of the intervention on the likelihood that the participant will be employed six months after release from incarceration?
3. Compared to the counterfactual condition, what is the impact of the intervention on the likelihood that the participant will be in a relationship six months after release from incarceration?

C. Additional research questions

Additionally, the evaluation sought to answer the following seven secondary research questions related to parenting skills, healthy relationships, and economic stability activities. The first set of research questions (under A) uses the quasi-experimental comparison group design, while the second set (under B) does not:

A. Compared to the counterfactual condition,

1. what is the impact of the intervention on parenting and co-parenting skills/behaviors, as measured by recent contact with children six months after release from incarceration?
2. what is the impact of the intervention on previous 30-day participation in education or job training programs six months after release from incarceration?
3. what is the impact of the intervention on partner/spouse conflict resolution six months after release from incarceration?
4. what is the impact of the intervention on mental health distress (depressive and anxiety symptoms) six months after release from incarceration?

B. For those in the intervention group,

1. how do participants rate their positive communication and collaboration with the other parent six months after release from incarceration?
2. how do participants rate their confidence in parenting skills six months after release from incarceration?
3. is there a relationship between number of intervention sessions attended and participant outcomes?

II. Intervention and counterfactual conditions

This section provides a description of MCCC's ReFORM program as it was evaluated in this study, including the intended study components, curricula, and content. This section also describes the comparison condition: a regional jail that serves a comparable population to those participating in the intervention.

A. Description of program as intended

The intervention condition consisted of four components that addressed the four main domains ReFORM sought to impact. All intervention participants were offered the same curricula with one exception. Single men or men who decided not to enter the program with a partner received “Within My Reach,” whereas the men with partners received “Within Our Reach” (PREP, Inc., n.d.a; PREP, Inc., n.d.b.). The curricula can be completed entirely during incarceration; however, if a father did not complete the curricula prior to release, he was able to complete it by attending workshops at the MCCC office.

1. Responsible parenting component

Family Education Specialists implemented InsideOut Dad®, the nation's only evidence-based fatherhood program designed specifically for incarcerated fathers (National Fatherhood Initiative, 2020). While this curriculum includes 12 core sessions that can be offered over up to 24 hours, it can be implemented in shortened 8- to 12-hour timeframes as needed depending on length of incarceration. In this study, the curriculum was planned to be offered in 12 sessions over 10-12 hours. InsideOut Dad® aims to increase inmates' self-worth and provide parenting and relationship skills covering several core topics, including what it means to be a man, men's health, showing and managing emotions, communication, the role and responsibility of a father, being a father during and after incarceration, co-parenting, and children's growth and discipline. Family Education Specialists coached participants both in groups and individually as needed on such adjunct topics as impact of their absence, conflict resolution, coping and self-management skills, and building support networks. As needed upon release, MCCC connected participants to the Supervised Visitation and Exchange Program, which assists families as they moved towards family reunification.

2. Economic stability and mobility

MCCC's ReFORM program was also designed to enhance participants' employability skills and career advancement using a set of individualized strategies based on their desired employment goals. As a central part of pre-release preparation, Employment Specialists provided "Makin' It Work," a 10-lesson training program designed to help offenders in transition from corrections to the community adjust more successfully to work (Parese, n.d.). Makin' It Work helps participants: 1) understand how their own attitudes and perceptions have justified illegal actions in the past; 2) gain new insights into employer expectations in the workplace, and mentally shift their own outlooks to be more successful on the job; and 3) improve interpersonal skills needed to manage difficult workplace situations. In addition, the FDIC Money Smart financial education program (Federal Deposit Insurance Corporation, n.d.) was offered to program participants as adjunct sessions designed to increase money management skills.

Makin' It Work sessions were followed by completion of the Step Ahead workbook designed to help reentering offenders become more prepared and confident with the job search process. Along with other career assessments, the workbook has exercises to explore current skills and abilities and match them with local in-demand jobs. This workbook also helps participants

understand some common job search challenges so that they can better prepare for job interviews, including learning about the benefits of networking and finding ways to connect with employers. Units are designed to help participants assess their strengths and career interests, create a plan to find a job, and provide job retention strategies. Results of assessments completed in Step Ahead were incorporated into an Individualized Service Plan (ISP) to help guide participants' reentry into the community.

As participants reentered the community, Employment Specialists, guided by ISPs where applicable, helped link participants to appropriate educational providers, including high school or GED programs, remediation/skills enhancement programs, or training offered at community colleges and other postsecondary institutions. For those participants who participated in job readiness classes, Employment Specialists conducted additional career and skill-based assessments. Some participants were referred to the Commonwealth Educational Opportunity Center for additional college and financial counseling. Employment Specialists also connected participants to the network of Kentucky Career Centers throughout the service area for job search and job placement assistance. Specialists coordinated with Career Center staff on employment opportunities and networked with local employers to identify additional employment opportunities for reentering participants. For those participants with special employment needs, staff connected them with MCCC's supported employment program designed for persons with serious mental illness, or the agency's Homeless Veterans Reintegration Program.

3. Healthy marriage and relationship education

In addition to providing InsideOut Dad® classes, Family Education Specialists also provided healthy marriage/relationship education activities to enable participants to form and sustain healthy relationships with their current or future spouse/partner, improve communication with the other parent and/or other family member who may be assisting in raising the child, and strengthen caregivers commitment to the child's overall wellbeing. Family Education Specialists utilized the "Within My Reach" curriculum, a 15-hour program that is flexible and adaptable to meet participant needs and empowers individuals to: 1) replace communication danger signs with proactive strategies for respectful talking and listening; 2) examine the warning signs of dangerous relationship patterns, including intimate partner violence; 3) develop skills to manage stress and reduce its negative effects; 4) explore/understand the role that decision-making plays in realizing personal needs and expectations; 5) learn how to enjoy and thoughtfully navigate decisions while in love; 6) understand the long-term satisfaction possible through commitment; 7) discuss forgiveness, infidelity and knowing when to end an unhealthy relationship; and 8) recognize the challenges and opportunities inherent in step-parenting or blended families. Due to the inability of partners to attend sessions in the detention center, MCCC staff offered separate sessions in the community with partners. These sessions could be separate but concurrent, so that partners could discuss and share what they were learning at visits within the detention center or through phone calls and correspondence.

For those couples who were able to participate in relationship education together after reentry, the project also offered "Within Our Reach," an 8-hour program on applying relationship skills

to heighten the quality of their union such as improved communication, managing expectations, and devoting themselves to commitment and support. The project sponsored an annual couples' event, such as a dinner, to support and enhance the relationship. Fathers participating in "Within Our Reach" did not typically participate in the "Within My Reach" curriculum.

4. Case management

Upon completion of intake and initial assessments, participants and the Family Advocate (who serves as the participant case manager) and the Employment Specialist, as applicable, jointly developed a holistic and person-centered ISP that specified all services desired by the participant (parenting, job skills training, employment assistance, relationship education, supportive services); how and by whom services were to be provided; goals and objectives; and desired outcomes.

As part of pre-release services, Family Advocates coordinated with participants' existing detention-based case managers, if provided, to ensure connections were established for services in the jail setting (for example, GED or substance abuse treatment) and plans were established to meet their needs upon discharge. Family Advocates met regularly with participants while incarcerated. Upon release, Family Advocates continued to provide services in-person and by phone, text, and email for up to six months after program completion. Advocates tracked ISP milestones and updated plans jointly with participants to reflect achievements, identification of additional needs or barriers, and reentry goals and employment objectives.

B. Description of counterfactual condition as intended

Incarcerated fathers from the Kentucky River Regional Jail served as the counterfactual condition. The Kentucky River Regional Jail (KRRJ) was selected as the comparison site because it does not fall in the MCCC-designated service region, but is located adjacent to it in rural Appalachian Kentucky. The region that KRRJ serves has similar sociodemographic characteristics as the region served by the Floyd County Detention Center and Big Sandy Regional Detention Center (Census, 2020b). No reentry services related to parenting, relationships or employment were provided at KRRJ.

Table II.1. Description of intended intervention and counterfactual components and target populations

Component	Curriculum and content	Dosage and schedule	Delivery	Target Population
Intervention				
Responsible parenting	InsideOut Dad® curriculum: developing pro-fathering attitudes, knowledge, and skills	12 sessions (10-12 hours, completed in 2 to 3 weeks)	Workshops are provided by one Family Education Specialist	Low-income, incarcerated fathers
Economic stability workshops	Makin' It Work curriculum: Resume preparation; interview and communication skills; appropriate work attire	10 sessions (10 hours, completed in 2 to 3 weeks)	Workshops are provided by one Employment Specialist	Low-income, incarcerated fathers
Relationship skills workshops	Within My (Our) Reach healthy relationships curriculum: Understanding partner's perspectives; avoiding destructive conflict; and communicating effectively	Within My Reach: 15 sessions (15 hours, completed in 2 to 3 weeks) Within Our Reach: 10 sessions (8 hours, completed in 2 to 3 weeks)	Group lessons provided at the intervention's facilities by two trained Family Education Specialists in every session	Low-income, incarcerated fathers
Counterfactual				
Responsible parenting	None	n.a.	n.a.	n.a.
Economic stability workshops	None	n.a.	n.a.	n.a.
Relationship skills workshops	None	n.a.	n.a.	n.a.

n.a. = not applicable.

Notes: The entire program took between 6 and 8 weeks to complete for most participants.

Table II.2. Staff training and development to support intervention components

Component	Education and initial training of staff	Ongoing training of staff
Intervention		
Responsible parenting	Family Education Specialists were male and held at least a bachelor's degree with some holding a master's degree. The initial training was with InsideOut Dad® curriculum trainers (2-4 days) or training with previously trained Family Education Specialists (1-2 weeks).	Family Education Specialists received ongoing training by doing "teach backs" during which Family Education Specialists conduct simulated classes with each other. They also completed online trainings when available.
Economic stability workshops	Employment Specialists were male and held at least a bachelor's degree with some holding a master's degree. The initial training was with curriculum trainers (2-4 days) or training with previously trained Employment Specialists (1-2 weeks).	Employment Specialists received ongoing training by doing "teach backs" during which Employment Specialists conduct simulated classes with each other. They also completed online trainings when available.
Relationship skills workshops	Family Education Specialists were male and held at least a bachelor's degree with some holding a master's degree. The initial training was with Within My Reach curriculum trainers (2-4 days) or training with currently trained Family Education Specialists (1-2 weeks).	Family Education Specialists received ongoing training by doing "teach backs" during which Family Education Specialists conduct simulated classes with each other. They also completed online trainings when available.
Case management	Family Advocates held a bachelor's degree and had a minimum of two years of experience working in the human services field. All Family Advocates attended MCCC's case manager training (2 days).	Other optional in-person and online trainings were completed at the discretion of the Family Advocate.

C. Research questions about the intervention and counterfactual conditions as implemented

The research questions in the implementation analysis focus on the fidelity of services offered as compared to the intended program model, the quality and amount of services received, and engagement with intervention services:

1. Fidelity: Were all intended intervention components offered and for the expected duration?
2. Dosage: How much programming did the intervention group members receive?
3. Quality: How well was the intervention implemented or delivered to intervention group members?
4. Engagement: Did fathers in the intervention group engage in intervention services, and if so, how engaged were they?
5. Context: What reentry services were available to comparison group participants?

III. Study design

This section provides a brief description of the study design and the process for creating intervention and comparison groups. The evaluation design and procedures were approved by the University of Kentucky Institutional Review Board on April 5, 2016.

A. Sample formation and research design

This evaluation utilizes a quasi-experimental research design (QED) including an intervention group of incarcerated fathers who received ReFORM program services from MCCC and a comparison group of incarcerated fathers in a comparable regional jail who did not receive ReFORM services. The intervention group sites included incarcerated fathers from Floyd County Detention Center and the Big Sandy Regional Detention Center in Johnson County. KRRJ in Perry County was selected as the comparison site. KRRJ is not in the targeted service area for MCCC's ReFORM program but serves a region that has similar sociodemographic characteristics as the ReFORM program sites (Census, 2020b).

In the evaluation, eligibility criteria used to select participants for the ReFORM program in the Floyd County Detention Center and the Big Sandy Regional Detention Center were also implemented in the comparison jail site. Participants were eligible if they were tried and convicted as adults; and were expectant or current adult fathers, including adoptive or step-fathers, or others acknowledged as a father figure of a dependent child or young adult up to 20 years of age. Participants could have any relationship status—married or unmarried, cohabitating or not—and have a custodial or non-custodial relationship with their child(ren).

The evaluation team worked closely with MCCC project staff to identify individuals interested in participating in the study. Men who enrolled in the ReFORM program at Floyd County Detention Center or Big Sandy Regional Detention Center were identified by MCCC and asked about their interest in the evaluation. At the comparison site, evaluation staff worked with KRRJ staff to identify potential evaluation participants. A full jail roster was received, and the evaluation team randomly selected 10 individuals a month to screen for study eligibility based on the same criteria as the intervention group.

All individuals meeting study eligibility were given the opportunity to participate in the evaluation. Trained interviewers discussed the evaluation, reviewed an informed consent document with the individual, and answered any questions. The individual then signed the informed consent form. This consent process was the same across all three jail sites.

Following consent, participants completed a face-to-face baseline interview with a trained interviewer the same day of the initial screening session, which lasted about one hour. Interviews were conducted in the jail visiting rooms, which were large enough to provide a confidential face-to-face interview. While jail staff were permitted to monitor participant entry and exit into the visitation room, no jail staff were present for the confidential interviews.

B. Data collection

This section provides an overview of the data sources used to address the implementation study research questions and the methods by which data on outcomes of interest were obtained from participants. Data collection procedures for the implementation evaluation will be discussed first, followed by those for the impact evaluation.

1. Implementation analysis

The evaluation team examined various data sources to address the study research questions pertaining to implementation which are identified in Table A.1 (in Appendix A). Data pulled from a web-based system called nFORM (Information, Family Outcomes, Reporting, and Management), which is used by ACF grantees to collect and store all data required for grant reporting, provided attendance logs and workshop session information. These data were used to address how much programming intervention group members received and if all intended intervention components were appropriately offered for the expected duration. Participant exit surveys were used to capture measures pertaining to the quality of services, and Family Education Specialists provided qualitative assessments of participant engagement.

2. Impact analysis

Evaluation staff collected data for the impact analysis at three timepoints using surveys: baseline, three months post-baseline, and six months post-release (see Appendix A, Table A.2). Baseline data were collected at time of enrollment while participants were incarcerated. Three-month post-baseline data were also collected when participants were incarcerated. If participants were released from incarceration prior to the three-month survey, they were considered a survey non-respondent. This decision was made to maintain comparability between the intervention and counterfactual groups, and because the three-month survey was not used to measure program impacts. The 6-month post-release survey was collected either in the community or in a correctional institution if the participant was re-incarcerated. Participants received \$10 for each completed survey. At baseline and three-months, data were collected face-to-face using computer-assisted personal interviewing (CAPI); at six-months, data were collected using CAPI either face-to-face or over the telephone, based on participant's preference. All CAPI interviews were administered with QDS™ Version 2.6 software (Questionnaire Development System; NOVA Research Company, 2009). For each ReFORM participant, MCCC kept a paper record of whether an ISP was developed.

IV. Analysis methods

This section describes the process used for constructing outcomes, defining the analytic sample, and assessing baseline equivalence.

A. Analytic sample

A CONSORT diagram is included as Figure 1 in Appendix A. Of the 704 incarcerated men who were screened, 401 met study eligibility criteria (201 in the ReFORM group and 200 in the comparison group). All of those eligible completed a baseline survey, and 52.6% (n=211) completed a follow-up survey six months after being released from jail. Participants also completed a survey at three months after baseline, which is not used to measure impacts. The analytic sample only includes those who were initially released from the jail setting in time to have a six-month post-release interview conducted by May 2020 when data collection concluded.

The primary analytic sample (see relevant portion of the CONSORT diagram in the appendix) consisted of individuals with both baseline and six-month follow-up data ($n=211$). One measure, parental role satisfaction, exhibited a high degree of missing data on the 3-item scale used to construct the measure. Consequently, only 76 participants were included in the analysis for this outcome. Because the majority of services were provided in a jail setting, and the intervention and counterfactual samples were recruited from different institutions, the potential for condition crossover was not a concern.

Table IV.1a. Individual sample sizes by intervention status

Number of individuals	Intervention sample size	Comparison sample size	Total sample size	Total response rate (%)	Intervention response rate (%)	Comparison response rate (%)
Assigned to condition	201	200	401	n.a.	n.a.	n.a.
Contributed a baseline survey	201	200	401	100	100	100
Contributed to first follow-up survey (3 months after baseline)	104	91	195	48.6	51.7	45.5
Contributed to second follow-up survey (6 months post-release)	117	94	211	52.6	58.2	47.0
Contributed to second follow-up (6 months post-release): Employment and relationship status outcomes analytic sample	117	94	211	52.6	58.2	47.0
Contributed to second follow-up (6 months post-release): Parental role satisfaction outcome analytic sample	43	33	76	19.0	21.4	16.5

n.a. = not applicable.

B. Outcome measures

Table IV.2 describes the outcome measures used to answer the primary and secondary research questions. Outcome measures used to address the primary research questions include parental role satisfaction, employment status, and relationship status. Parental role satisfaction was measured with a multi-item scale constructed from three items focused on a respondent's happiness, closeness, and comforting interactions with their youngest child ($\alpha = 0.96$). A sample item is: "How often you felt happy being with your child in the past month." Possible scores range from three to 12, with higher scores indicating a greater level of satisfaction. Employment status and relationship status were each measured by a single dichotomous response item (*yes* or *no*). These were, "Do you have a job now?" and "Are you currently in a relationship (whether or not you are married)?," respectively.

Table IV.2. Outcome measures used for primary impact analyses research questions

Outcome measure	Description of the outcome measure	Timing of measure
Parental role satisfaction	The outcome measure is a scale (total score range 3-12) calculated by summing three survey items measuring happiness, closeness and comforting interactions with the child. Each item was measured using the response categories 1 = Never, 2 = Hardly Ever, 3 = Sometimes, 4 = Often. Items were: 1) How often you felt happy being with [CHILD 1] in the past month; 2) How often you felt very close to [CHILD 1] in the past month; and 3) How often you tried to comfort [CHILD 1] in the past month.	Six months after release from incarceration
Employment status	The outcome measure is a yes/no response to the survey item: "Do you have a job now?"	Six months after release from incarceration
Relationship status	The outcome measure is a yes/no response to the survey item: "Are you currently in a relationship (whether you are married or not married)?"	Six months after release from incarceration

Note: CHILD 1 is defined as the youngest child.

Table IV.3 contains descriptions of the measures used to examine secondary research questions. Past month in-person contact with their youngest child was measured by a single item, "When was the last time you saw your child?" Other contact with their youngest child was measured using two items, "In the past month, how often did you talk to your child on the phone?" and "In the past month, how often have you sent letters to your child?" These questions were dichotomized such that responses indicating contact by phone or letter within the past month or less were coded as 1 = *Yes*, while those indicating a longer interval were coded as 0 = *No*.

Previous 30-day participation in education or job training programs was measured by a single item, "Have you participated in education or job training programs in the past month?" (0 = *No*, 1 = *Yes*). Conflict resolution with the other parent of their youngest child was measured using a single item, "How satisfied are you with the way you and your partner/spouse handle conflict?" Response options were measured along a continuum, with higher scores representing greater satisfaction (1 = *Not at All Satisfied*, 2 = *Somewhat Satisfied*, and 3 = *Very Satisfied*).

Mental health distress was measured with a scale including six items that asked about recent experience of symptoms of anxiety and depression. Frequency of symptoms for each item was measured along a spectrum (1 = *None of the Time*, 2 = *A Little of the Time*, 3 = *Some of the Time*, 4 = *Most of the Time*, and 5 = *All of the Time*). Sample items include: “How often you felt nervous in the past 30 days,” and “How often you felt hopeless in the past 30 days.” An overall mental health distress score was calculated by summing the items ($\alpha = 0.92$). Possible scores ranged from six to 30, with higher scores indicating more frequent experience with symptoms.

Positive communication and collaboration with the other parent of their youngest child was measured by the following item, “Since attending the program, my child’s mother and I work better together as parents.” Initially, possible responses for this item were ordinal (1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Agree*, 4 = *Strongly Agree*); however, it was dichotomized such that responses indicating agreement or strong agreement were coded as 1 = *Agree* and those indicating disagreement or strong disagreement were coded as 0 = *Disagree*.

Confidence in skills to parent their youngest child was assessed using the following ordinal items (1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Agree*, 4 = *Strongly Agree*): 1) “Since attending the program, I feel more confident that I have the skills necessary to be an effective parent”; and 2) “Since attending the program, I feel more confident about my ability to stay connected with my child.” These two items were summed to create an overall score for confidence in parenting skills ($\alpha = 0.96$). The range of possible scores was two to eight, with higher scores indicating stronger agreement.

Table IV.3. Outcome measures used for secondary impact analyses research questions

Outcome measure	Description of outcome measure	Source	Timing of measure
Past month in-person contact with children	The measure is a yes/no response based on dichotomizing the survey question, "When is the last time you saw [CHILD 1]?", where "yes" is seeing CHILD 1 in the past month or less and "no" is anything else.	Follow-up interview	Six months after release from incarceration
Past month other contact with children	The measure is a yes/no response based on dichotomizing the survey questions, "In the past month, how often did you talk to [CHILD 1] on the phone?", and "In the past month, how often have you sent letters to the [CHILD 1]?", where "yes" is contact either by phone or letter with [CHILD 1] in the past month or less and "no" is anything else.	Follow-up interview	Six months after release from incarceration
Previous 30-day participation in education or job training programs	The measure is a yes/no response taken directly from the question in the survey, "Have you participated in education or job training programs in the past month?"	Follow-up interview	Six months after release from incarceration
Conflict resolution	This measure is a very/somewhat/not at all satisfied response taken directly from the question in the survey, "How satisfied are you with the way you and your partner/spouse handle conflict?" Higher scores indicate greater satisfaction.	Follow-up interview	Six months after release from incarceration
Mental health distress	The outcome measure is a scale (total score range 6-30) calculated from six survey items measuring symptoms and anxiety and depression. Items included: 1) "How often you felt nervous in the past 30 days;" 2) "How often you felt hopeless in the past 30 days;" 3) "How often you felt restless or fidgety in the past 30 days;" 4) "How often you felt so depressed that nothing could cheer you up in the past 30 days;" 5) "How often you felt that everything was an effort in the past 30 days;" and 6) "How often you felt worthless in the past 30 days." Higher scores more frequent experience with symptoms.	Follow-up interview	Six months after release from incarceration
Positive communication and collaboration with other parent*	The outcome measure is an agree/disagree response based on dichotomizing how much they agree with the statement, "Since attending the program, [CHILD 1]'s mother and I work better together as parents." Higher scores indicate stronger agreement.	Follow-up interview	Six months after release from incarceration
Confidence in parenting skills*	The outcome measure is a scale (total score range 2-8) calculated from two survey items measuring confidence in parenting skills. Higher scores indicate stronger agreement.	Follow-up interview	Six months after release from incarceration

Note: CHILD 1 is defined as the youngest child.

*Item only collected for participants in the intervention group.

C. Baseline equivalence and sample characteristics

1. Propensity score weights

Propensity scores were estimated and weights were applied to the sample in an attempt to achieve balance across study groups on key characteristics (Cefalu, Shuangshuang, & Martin, 2015). The following baseline measures were used to create the propensity score weights: age, number of lifetime arrests, age at first arrest, employment status, prior 30-day participation in job/education training program, relationship status, education level, race, parental role satisfaction, in-person contact with children, other contact with children, mental health distress scale, lifetime years spent incarcerated (jail or prison), length of current sentence (in days), and time to release from current sentence (in days). Please refer to Appendix B for a more detailed discussion of this process.

2. Baseline equivalence

Baseline equivalence between the intervention and comparison groups was investigated for all demographic, criminal history, and other background characteristics. The equivalency of all primary and secondary outcome measures was also investigated. Continuous variables were compared using t-tests, whereas categorical variables were compared using chi-square tests. Baseline equivalency tests were performed with a two-tailed test with significance level of 0.05. Significant imbalance was observed for five measures in the main analytic sample (race, educational attainment, employment status, past month in-person contact with children, and prior 30-day participation in an education or job training program) and for two measures in the analytic sample that includes only those who provided a valid response for the parental role satisfaction measure (employment status and prior 30-day participation in an education or job training program) before propensity score weights were applied (see Table B.1 and Table B.2 in Appendix B).

This imbalance was corrected by applying the propensity score weights. Tables IV.4a and IV.4b present baseline equivalence tables demonstrating that this method was successful in achieving balance as measured by statistical significance on all primary outcome measures and demographics for both analytic samples. Though, a significant baseline between-group difference remained for one secondary outcome measure (previous participation in education or job training).

Table IV.4a. Summary statistics of key baseline measures and baseline equivalence across study groups, for individuals completing the six-month follow-up interview (n = 211)

Baseline measure	Intervention mean or % (standard deviation)	Comparison mean or % (standard deviation)	Intervention versus comparison mean difference (p-value of difference)	Standardized effect size
Age (years)	37.58 (9.16)	37.47 (8.57)	0.11 (0.937)	0.012
Race (White)	100.0%	93.1%	6.8% (0.089)	n.a.
Education completed (years)	11.15 (1.77)	11.50 (1.44)	-0.35 (0.127)	-0.202
Age of first arrest (years)	19.83 (7.56)	18.87 (4.39)	0.96 (0.250)	0.126
Total lifetime arrests	21.88 (29.68)	25.20 (39.02)	-3.32 (0.543)	-0.112
Parental role satisfaction (range 3-12)	11.88 (0.41)	11.75 (0.80)	0.13 (0.449)	0.211
Has a job (yes)	13.7%	16.6%	-2.9% (0.548)	-0.084
Relationship status (in a relationship)	46.2%	43.8%	2.4% (0.762)	0.047
Past month in-person contact with children (yes)	32.4%	37.5%	-5.1% (0.515)	-0.109
Past month other contact with children (yes)	49.0%	43.4%	5.6% (0.500)	0.137
Conflict Resolution (range 1-3)	1.83 (0.80)	1.77 (0.73)	0.06 (0.712)	0.081
Previous 30-day participation in education or job training programs (yes)	16.2%	3.7%	12.5% (0.013)	0.338
Mental health distress (range 6-30)	13.32 (5.94)	13.37 (6.32)	-0.05 (0.953)	-0.009
Sample size	117	94	n.a.	n.a.

n.a. = not applicable.

Notes: Standardized effect sizes for continuous variables are Hedge's g coefficients (calculated by dividing the differences in means by the pooled standard deviation), while effect sizes for nominal variables are Cox Indices.

Table IV.4b. Summary statistics of key baseline measures and baseline equivalence across study groups, for individuals completing the six-month follow-up interview and provided a response to the parental role satisfaction scale (n = 76)

Baseline measure	Intervention mean (standard deviation)	Comparison mean (standard deviation)	Intervention versus comparison mean difference (p-value of difference)	Standardized effect size
Age (years)	36.32 (7.30)	37.65 (8.72)	-1.33 (0.613)	-0.182
Race (White)	100.0%	96.8%	3.20% (0.297)	n.a.
Education completed (years)	11.33 (1.34)	11.40 (1.54)	-0.07 (0.871)	-0.049
Age of first arrest (years)	19.67 (4.12)	20.30 (5.95)	-0.63 (0.599)	-0.153
Total lifetime arrests	28.88 (48.12)	44.23 (69.06)	-15.35 (0.558)	-0.250
Parental role satisfaction (range 3-12)	11.88 (0.42)	11.79 (0.73)	0.09 (0.519)	0.209
Has a job (yes)	15.2%	20.8%	-5.6% (0.556)	-0.155
Relationship status (in a relationship)	63.6%	65.1%	-1.5% (0.924)	-0.03
Past month in-person contact with children (yes)	100.0%	100.0%	0.00% (0.708)	n.a.
Past month other contact with children (yes)	97.0%	90.3%	6.7% (0.269)	0.383
Conflict resolution (range 1-3)	1.91 (0.82)	1.73 (0.68)	0.18 (0.470)	0.211
Previous 30-day participation in education or job training programs (yes)	21.2%	0.0%	21.2% (0.004)	n.a.
Mental health distress (range 6-30)	13.3 (6.33)	12.68 (5.83)	0.62 (0.663)	0.101
Sample size	33	43	n.a.	n.a.

n.a. = not applicable.

Notes: Standardized effect sizes for continuous variables are Hedge's g coefficients (calculated by dividing the differences in means by the pooled standard deviation), while effect sizes for dichotomous variables are Cox Indices.

V. Findings and Estimation Approach

A. Implementation evaluation

1. Key findings

MCCC's ReFORM program was implemented with fidelity after MCCC made program refinements to increase participant engagement. Participants attended an average of 22 sessions and almost all participants (90%) found the intervention services helpful. Family Education Specialists' perceptions indicated that participants appeared most engaged in the InsideOut Dad® curriculum and also noted high levels of engagement in components of the Within My Reach curriculum. Detailed implementation analysis findings are provided in the following sections.

2. Fidelity

Two substantive changes were made to the program curricula in implementation to increase participation. The FDIC Money Smart program was eliminated in September 2017. Program participants expressed a lack of interest in attending this program, and it was perceived as a poor fit for the target population. In October 2018, MCCC worked with InsideOut Dad® and Within My Reach curriculum developers to identify ways to reduce the number of sessions while preserving all curriculum content. This was particularly important for the sessions delivered in the jail where it was difficult to have a cohort attend the program together. In consultation with curriculum developers, InsideOut Dad® was reduced from 12 sessions to 10 sessions and Within Our Reach was reduced from 15 sessions to 10 sessions. The sessions were reduced by combining shorter sessions into fewer, longer sessions. Importantly, all content was offered in these curricula, and it was delivered to the intervention group with each session lasting the expected time. The program was implemented with fidelity to this revised program schedule.

Additionally, MCCC hired and trained workshop facilitators, Family Education Specialists and Employment Specialists with appropriate educational qualifications to deliver the curricula and services. These facilitators participated in ongoing trainings including "teach backs" with each other to enhance the fidelity of service delivery.

3. Dosage

Participants on average received 14.92 case management contacts (range = 0-77) and attended 22.05 workshops (73.5% of the 30 workshops in the revised program schedule) across the three components of MCCC's ReFORM program. Over time, the percentage of participants that completed at least one service increased during most years of the study, from 2016 to 2020. For instance, 76.9% of eligible participants completed one or more services during 2016. This increased to 90.1% in 2017, 83.0% in 2018, 92.8% in 2019, and 98.2% in 2020.

4. Quality

Program participants rated the quality of services favorably. Nearly 90% of participants reported that the program was helpful overall. Specifically, more than half (52.5%) of participants stated that the program helped them “some,” while more than one third (36.7%) reported that it helped them “a lot.” A large majority of participants who provided additional qualitative responses described program services using terms such as “good” or “great,” or having helped them “a lot.” One participant commented that lessons learned in the program “will also apply to all the relationships in my life, teaching me how to communicate better.” This participant also noted that the program is good for “any father to attend because I thought I didn’t need any help to become a better parent, but this definitely showed me that I can be, and I am, becoming an even better father.” Other participants echoed the sentiment that services are translatable to fathers from a wide variety of backgrounds and recommended that the curriculum be completed by anyone who has children. Other comments focus on the qualities of staff, noting that they were “friendly,” “helpful,” and “knowledgeable.” A few participants offered suggestions for improvement. These included increasing consistency in scheduling so that participants’ daily routines are more predictable, augmenting the seating arrangement such that students perceive they are “equal with the teacher,” and cross-training staff so that more staff members are authorized to distribute survey incentives.

5. Engagement

Informal feedback from Family Education Specialists indicated that participants were most engaged in the InsideOut Dad® curriculum. They indicated that the sessions on the father’s role in the family, how to discipline children, and how to communicate with their partner most engaged program participants. However, participants were observed to be less engaged during sessions on personal family history and how to work with mom after separation. For the Within My Reach curriculum, Family Education Specialists noted that participants were most engaged in the sessions on discovering your personality and the speaker/listener technique. Participants were observed to be less engaged during a session on “Sliding vs. Deciding,” which focused on actively thinking through consequences of their relationships.

In addition, approximately 41% of participants in the intervention condition completed an ISP, another indication of program engagement. Participants most likely to develop an ISP were older in age, had more lifetime arrests, and were older at the time of their first arrest.

6. Context

Participants in the comparison group did not have access to any programming related to fatherhood, healthy marriages and relationships, or employment and economic mobility. This information was verified initially through discussion with Kentucky River Regional Jail staff and ongoing review of the Kentucky Department of Corrections jail program matrix (Kentucky Department of Corrections, 2020).

Table V.1. Description of Measures Linked to Research Questions

Implementation Element	Research Question	Measure
Fidelity	Were all intended intervention components offered and for the expected duration?	Total number of sessions delivered; total number of topics covered; average session duration.
Dosage	How much programming did the intervention group members receive?	Percent of participants who completed at least one service annually. Average number of workshops attended for each participant.
Quality	How well was the intervention. Implemented or delivered to intervention group members?	Average rating of service quality calculated from items on “Program Perceptions” in participant survey.
Engagement	Did fathers in the intervention group engage in intervention services, and, if so, how engaged were they?	Qualitative perceptions of participant engagement by intervention staff.
Context	What reentry services were available to comparison group participants?	Qualitative description of services available to participants outside of the intervention.

B. Primary impact evaluation

1. Key findings

Impact analyses found no differences between the intervention and comparison groups for the three primary outcomes. Specifically, MCCC ReFORM participants had comparable levels of parental satisfaction, being employed, and being in a relationship six months after being released from jail. Detailed information on the impact analyses for primary outcomes are provided below.

3. Analytic methods

Regression models were used to assess the effect of the intervention on each outcome. Logistic regression was employed for models with dichotomous (yes/no) dependent variables. Outcome variables measured as multi-item scales were treated as continuous variables and analyzed using linear regression. All regression models controlled for baseline measures of outcome variables as covariates. Table V.2 provides a description of the covariates included in the analyses conducted to estimate impacts of the intervention. Only individuals with complete baseline and follow-up data were included in the analyses and no data were imputed. Due to the imbalance observed on key baseline measures described in Section IV. C., the analytic approach involved estimation of intervention effects on outcomes using propensity score weights in the analyses.

Findings for nominal outcomes of interest are presented as average adjusted predictions (AAPs), which are interpreted as the probability that the outcome will occur for participants in each condition (intervention or counterfactual), adjusting for the other covariates in the model (Williams, 2012). Average marginal effects (AMEs) are also presented, which refer to the difference in the likelihood of an outcome between the two conditions. This effect is also commonly referred to as a “risk ratio” or “risk difference” in epidemiological literature (Muller & MacLehose, 2014). Findings for continuous outcomes of interest are presented as adjusted mean differences between intervention participants and those in the comparison group.

3. Impacts

Table V.3 presents the impact estimates for the three primary research questions. The first primary research question focused on the intervention's impact on co-parenting skills/behaviors measured using parental role satisfaction six months after release from incarceration. The estimated mean level of parental satisfaction for intervention participants was 11.91, while that of those in the comparison group was 11.35. This small mean difference was not statistically significant ($p = 0.285$), indicating that the intervention was not significantly associated with parental role satisfaction. The second primary research question asked whether the intervention affected a participant's likelihood of employment six months after release from incarceration. There was a slight difference in post-release full- or part-time employment status between those in the intervention condition and those in the counterfactual condition, while adjusting for all covariates. Specifically, the AAP of employment for those in the intervention condition was 22.2%, while it was 21.4% for those in the counterfactual condition. This slight difference (AME = 0.90%), however, was not statistically significant, meaning that both conditions are equally likely to be employed six months following release from incarceration ($p = 0.975$).

The third primary research question addressed the impact of the intervention on the likelihood that a participant would be in a relationship six months after release from incarceration. Regression analysis revealed a small difference between conditions in the likelihood of post-release relationship status, with the predicted probability for participants in the intervention condition being 40.1% and that for those in the counterfactual condition being 39.2%. That is, on average, the probability of being in a relationship for participants in the counterfactual condition was approximately one percentage point higher than it was for those in the intervention condition. Again, however, this observed difference failed to reach statistical significance ($p = 0.892$).

Table V.2. Covariates included in impact analyses

Covariate	Description of the covariate
Age	Age (in years) as of the baseline data collection
Education completed	Education completed (in years) as of the baseline data collection
Age of first arrest	Age (in years) of first arrest
Total lifetime arrests	Total number of times arrested at time of baseline data collection
Employment status	The baseline measure is a yes/no response taken directly from question in the survey, "Do you have a job now?"
Parental role satisfaction	The baseline measure is a scale (total score range 3-12) calculated from three survey items (A4a-A4c) measuring happiness, closeness, and comforting interactions with the child.
Relationship status	The baseline measure is a yes/no response taken directly from the question in the survey, "Are you currently in a relationship (whether you are married or not married)?"

Table V.3. Post-intervention estimated effects using data from the 6-month survey follow-up to address the primary research questions (n = 211)

Outcome measure	Intervention adjusted mean or % (standard deviation)	Comparison adjusted mean or % (standard deviation)	Intervention compared to comparison adjusted mean difference (p-value of difference)
Panel A: Analytic sample (n = 76)			
Parental role satisfaction (range 3-12)	11.91 (0.23)	11.35 (1.59)	0.56 (0.285)
Sample Size	33	43	n.a.
Panel B: Analytic sample (n = 211)			
Has a job (yes)	22.26%	21.36%	0.90% (0.881)
Relationship status (in a relationship)	40.12%	39.16%	0.96% (0.892)
Sample Size	117	94	n.a.

n.a. = not applicable.

Source: Second follow-up surveys administered 6 months post-release.

C. Sensitivity analyses

Sensitivity analyses were performed on each regression model used to examine primary research questions (Reichardt, 2019). For each outcome, average marginal effects were estimated in a variety of ways: 1) the benchmark approach reported in Table V.2 (with specified covariates and propensity score weights); 2) with propensity score weights but no covariates; 3) with propensity score weights, benchmark covariates, and incarceration-specific covariates (total years incarcerated, sentence length, and time to release); and 4) with benchmark covariates, but without propensity score weights. The benchmark estimate was compared to those produced by the three other methods. Table V.4 presents the differences in each primary outcome's estimate produced by the benchmark compared to those yielded by the alternative methods. While the average marginal effects (AMEs) for each outcome tended to fluctuate according to method, sometimes even changing direction, AMEs consistently failed to reach statistical significance. That is, regardless of the analytic method, participant condition did not exert a significant effect on any of the three primary outcomes in any regression model.

Table V.4. Differences in means between intervention and comparison groups estimated using alternative methods

Outcome	Benchmark approach	No covariate adjustment	With incarceration covariates	Unweighted
Parental role satisfaction (range 3-12)	0.56	Not estimated	Not estimated	0.12
Has a job (yes)	0.90%	-1.23%	-6.93%	-1.07%
Relationship status (in a relationship)	0.96%	1.08%	-3.45%	0.05%

Source: Second follow-up surveys administered 6 months post-release.

**/*/+ Differences are statistically significant at the .01/.05/.10 levels, respectively.

Notes: Adjusted mean difference or percent is presented.

D. Additional analyses

1. Key findings

Impact analyses found no differences between the intervention and comparison groups for the secondary outcomes. Follow-up measures of child contact, education or job-training participation, and partner/spouse confliction resolution skills were not significantly associated with participation in MCCC's ReFORM program. Intervention dose also was not found to be associated with secondary outcomes. More information on impact analyses for secondary outcomes are presented in the following sections.

2. Analytic methods

The analytic methods used to answer secondary research questions that compare the intervention and counterfactual conditions mirror those employed to address the primary research questions. As before, the baseline measure of each outcome was included as an independent variable along with the other covariates presented in Table V.2 in respective regression models. The remaining secondary research questions focused on descriptive outcomes for intervention participants and therefore, did not include the comparison group.

As stated previously, significant imbalance remained for one baseline measure of a secondary outcome after applying propensity score weights: previous participation in education or job programming. This inability to achieve balance may have introduced bias in our estimation of outcomes for this model. Therefore, we performed a sensitivity analysis for the secondary outcome model that used this measure as a covariate. Specifically, we first estimated the impacts of covariates by including the baseline measure of education or job training participation, then by excluding it and comparing the two models. Ultimately, both methods yielded similar AMEs and participant condition was not significantly related to this outcome in either model.

3. Secondary outcomes

Table V.4 summarizes exploratory findings from additional analyses used to answer the secondary research questions. Regarding the first research question, the intervention was not associated with in-person or other contact with participants' youngest child in the 30 days prior to follow-up. Results indicate that 49.4% of intervention participants had in-person contact with children compared to 53.7% of the comparison group. However, this difference was not statistically significant ($p = 0.612$). Similarly, the AAP of other contact with children was 58.9% for those receiving intervention services and 55.3% for those not receiving enhanced services. Again, this difference was not significant ($p = 0.673$).

The next secondary research question explored the impact of the intervention on participation in education and/or job training programs upon release from incarceration. The AAP of reporting participation in such programs within the past 30 days for those in the intervention condition was 8.36%, while it was 3.13% for those in the counterfactual condition. This difference (AME = 5.23%) was not statistically significant ($p = 0.140$).

The third and fourth secondary research questions are concerned with the effects that condition exerts upon partner/spouse conflict resolution and mental health distress (depressive and anxiety symptoms) six months after release from incarceration, respectively. The estimated mean score for partner/spouse conflict resolution in the intervention condition was 1.43 (range = 1-3), compared to 1.40 in the comparison group. This mean difference was small and not statistically significant ($p = 0.810$). Similarly, participant condition did not significantly impact mental health. Specifically, intervention participants reported a mean mental health distress score of 11.92 (range = 6-30), while those in the comparison group reported a mean score 11.61. Once again, this mean difference was not statistically significant ($p = 0.739$).

4. Descriptive outcomes

As previously mentioned, data for the descriptive outcomes described in this section were only collected from intervention participants. The fifth and sixth secondary research questions asked how participants rated their positive communication and collaboration with the other parent and confidence in parenting skills at 6-month follow-up, respectively. Descriptive statistics revealed that 57.8% of those in the intervention condition rated their communication and collaboration with the other parent as positive, while 42.2% did not. Additionally, the estimated mean reported parental confidence score for participants was 4.94 (range = 2-8). The seventh and final secondary research question asked whether, for those in the intervention group, there was a relationship between number of intervention sessions attended and any primary or secondary outcomes. The positive relationship between number of sessions attended and in-person contact with children approached significance ($p < 0.1$), with increased attendance associated with an increased likelihood of in-person contact within the past month. To illustrate, the AAP of in-person contact with children for a participant that attended one session was 36.08% compared to 43.44% for a participant that attended 22 sessions (the mean number of sessions). Session attendance was not significantly associated with any other primary or secondary outcomes, however.

Table V.4. Post-intervention estimated effects using data from the 6-month survey follow-up to address the secondary research questions

Outcome measure	Intervention adjusted mean or % (standard deviation)	Comparison adjusted mean or % (standard deviation)	Intervention compared with comparison adjusted mean difference (p-value of difference)
Past month in-person contact with children (yes)	49.41%	53.67%	-4.26% (0.612)
Past month other contact with children (yes)	58.87%	55.26%	3.61% (0.673)
Previous 30-day participation in education or job training programs (yes)	8.36%	3.13%	5.23% (0.140)
Conflict resolution (range 1-3)	1.43 (0.51)	1.40 (0.54)	0.03 (0.810)
Mental health distress (range 6-30)	11.92 (5.76)	11.61 (6.29)	0.31 (0.739)
Positive communication and collaboration with other parent (yes)	57.83%	n.a.	n.a.
Confidence in parenting skills (range 2-8)	4.94 (1.06)	n.a.	n.a.

Outcome measure	Intervention adjusted mean or % (standard deviation)	Comparison adjusted mean or % (standard deviation)	Intervention compared with comparison adjusted mean difference (p-value of difference)
Sample Size	117	94	n.a.

n.a. = not applicable.

Source: Second follow-up surveys administered 6 months post-release.

VI. Discussion

MCCC was awarded a five-year grant from ACF to strengthen positive father-child engagement, improve employment and economic mobility opportunities, improve healthy relationships and marriage, and decrease barriers to successful community reentry of fathers who were incarcerated in rural Appalachian Kentucky. Funded through ACF's ReFORM program, this grant allowed MCCC to provide evidence-based services to strengthen parenting skills for fathers who were incarcerated and planning for community reentry, along with interventions to increase economic mobility and relationships. Using a rigorous quasi-experimental design, University of Kentucky Center on Drug and Alcohol Research conducted an independent evaluation to assess the implementation of MCCC's ReFORM program services and their impact on three primary outcomes: parental role satisfaction, employment status, and relationship status.

Findings of the implementation analysis highlight MCCC's success in implementing ReFORM services. While early modifications to the planned services were made to eliminate the FDIC Money Smart program and reduce the number of InsideOut Dad® and Within My Reach sessions, these were needed to better accommodate the target population. Session reductions were made in consultation with the curricula developers in order to preserve the overall content of the original sessions, which helped maintain fidelity. Given that these modifications were made early after program implementation and that curricula content was consistent, it is unlikely that experiences of early participants appreciably differed from the participants that followed in the program.

All participants were offered the same curricula; however, not all participants took full advantage of the opportunities to attend program workshops, which may have impacted overall program effectiveness. On average, MCCC's ReFORM program participants attended nearly three-fourths of the sessions that were offered. It is unclear why attendance was not higher, especially given that participants reported they found the program helpful and program staff noted good participant engagement in several of the sessions. While participant ratings of program quality were high, it may be that those who did not provide ratings of program quality had less positive experiences with the program. This evaluation did not include qualitative interviews with program participants about program participation barriers, but future studies should consider employing this approach to collect more detailed information on what accounts for variability in workshop attendance. For example, it would be important to identify whether personal-level (like interest in a particular topic) or setting-level (like jail staff or schedules) factors affected workshop attendance.

Although the evidence-based services for the ReFORM program were delivered with an emphasis on fidelity, impact analyses yielded little evidence for their direct effect on the selected primary and secondary outcomes. Overall, the findings indicated few differences between the intervention group and the comparison group at six-months post-jail release. Specifically, participants enrolled in the evaluation reported similar levels of satisfaction with their parenting role, rates of employment, and rates of being in a relationship 6-months post-jail release,

regardless of whether they received ReFORM program services. Similarly, secondary outcomes were not significantly associated with the intervention.

Several possible explanations exist for the null findings of the impact analyses and should be carefully considered when interpreting them. First, the size of the follow-up sample may have limited the ability to detect the intervention effects, particularly for the parental role satisfaction outcome which had fewer respondents than the employment and relationship outcomes. Despite established procedures used to track and locate evaluation participants for follow-up interviews (including the use of a monetary incentive), the six-month follow-up rate was 53% (211 out of 401). As previously noted, several participants were excluded from the analytic sample because they remained in jail during the follow-up period. Several others were released from jail but reincarcerated at follow-up. While follow-up interviews were conducted with the majority of these reincarcerated participants, correctional institutions were closed to visitors in the closing months of six-month follow-up data collection (March thru May 2020) due to COVID-19, which made follow-up more difficult. A larger follow-up sample size would have likely increased the statistical power of the analytic models to detect any intervention effects (Oakes & Feldman, 2001).

Measurement issues may have also affected the ability to detect intervention effects. The three primary outcomes showed little variance, especially with two of the three being dichotomous outcomes. For one outcome, parental role satisfaction, it is possible that a ceiling effect contributed to a null finding. The mean parental role satisfaction scores at baseline for the intervention and counterfactual conditions was 11.89 and 11.72, respectively, with a maximum possible score of 12. That is, participant scores were so high at baseline that very little improvement was mathematically possible (Conroy, 2005). In addition, the “being in a relationship” outcome may have been less relevant to the intervention given that not all participants entered the study with a partner, and in some cases, not being in a relationship may have been the healthier option for the individual. Other measures than those used in this evaluation may have been more sensitive to differences between the intervention and counterfactual groups. For example, Block et al. (2014) found significant changes in parental knowledge and attitudes in their evaluation of the InsideOut Dad Program®. Future research should strive to use similar measures so that comparisons across studies can more easily be made.

Other possible contributors include the characteristics of the sample and region. For example, economic distress, which has long characterized rural Appalachian Kentucky, and the barriers to finding employment for individuals with recent criminal justice involvement, may have been too large for the intervention to overcome. In addition, the comparison group was recruited from a single jail, creating a “single unit” confounding factor. In other words, it may not be possible to disentangle the counterfactual condition, not receiving MCCC’s ReFORM program, from the unique characteristics of the comparison jail site where this condition was measured.

Intervention decay may have also occurred such that any intervention effects that did exist disappeared over time as participants reintegrated into their communities. Conversely, differences between groups may only emerge after longer periods in the community. These

possibilities are beyond the scope of the present evaluation but are worthwhile to consider in future programming with this population.

Although the impact analysis did not offer evidence for the effectiveness of the intervention, MCCC successfully delivered the ReFORM intervention to a total of 627 fathers who were incarcerated over a five-year period, 201 of whom agreed to participate in the local evaluation. These fathers were provided with educational information and tools to use to strengthen their positive engagement with their children, enhance their employment and economic mobility, and improve the health of their relationships and marriage. While the impact of these services may not have been realized in the first six months following incarceration, it is possible intervention participants will continue to benefit from the content of the ReFORM program in order to make positive changes in their own lives, including strengthening positive interactions with their children and sustaining healthy relationships and marriages.

VII. References

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VIII. Appendices

A. Data and Study Sample

Table A.1 describes the research questions and data sources for the implementation analysis. Specific data sources are described below:

- **Fidelity:** Qualitative data drawn from consultation with staff were used to identify notable changes to curriculum delivery, while data drawn from the nFORM database (workshop sessions) were used to identify the types of sessions that were delivered during the study period.
- **Dosage:** Data used to evaluate this implementation element included quantitative data obtained from the nFORM database (attendance logs and service contacts). Analyses yielded descriptive statistics, such as the range and average number of workshops attended and service contacts over time.
- **Quality:** Data for this implementation element were collected from an open-ended survey item on the nFORM follow-up interview (“Program Comments”). These data were analyzed via a spreadsheet-based approach, which included identifying common themes that appeared consistently across participants. The frequency with which these themes were noted by participants was calculated and the most frequently cited themes were reported.
- **Engagement:** These qualitative data were primarily drawn from informal feedback provided by the Family Education Specialists responsible for delivering specific curricula. Additionally, quantitative data regarding the likelihood of developing an ISP and its relationship to other characteristics were obtained from the follow-up survey administered to participants.
- **Context:** Qualitative data for this implementation element were initially gleaned from preliminary discussions with Kentucky River Regional Jail staff. Analysis also included ongoing review of the Kentucky Department of Corrections jail program matrix, which details programs available to inmates at local jails across Kentucky.

Table A.1. Data collection information linked to implementation research questions

Implementation element	Research question	Data source	Timing/frequency of data collection	Party responsible for data collection
Fidelity	Were all intended intervention components offered and for the expected duration?	Workshop sessions in nFORM; attendance logs	All sessions delivered	Intervention staff
Dosage	How much programming did the intervention group members receive?	Attendance logs; workshop sessions and individual service contacts in nFORM	All sessions delivered	Intervention staff
Quality	How well was the intervention implemented or delivered to intervention group members?	Survey items on follow-up interviews "Program Comments"	Three months post-baseline	Study staff
Engagement	Did fathers in the intervention group engage in intervention services, and, if so, how engaged were they?	Qualitative feedback from Family Education Specialists	End of evaluation period	Study staff
Context	What re-entry services were available to comparison group participants?	Kentucky Department of Corrections website	End of evaluation period	Study staff

Table A.2. Key features of the impact analysis data collection

	Data source	Timing of data collection	Mode of data collection	Party responsible for data collection	Start and end date of data collection
Intervention	Intervention group study participants	Enrollment (baseline) 3 months post-baseline 6 months post-release	Face-to-face interview (some 6-month by phone)	Study staff	July 2016 through May 2020
	Intervention group study participants	Ongoing (record of whether an ISP was created)	Paper record	MCCC staff	July 2016 through May 2020
Counterfactual	Comparison group study participants	Enrollment (baseline) 3 months post-baseline 6 months post-release	Face-to-face interview (some 6-month by phone)	Study staff	July 2016 through May 2020

B. Data Preparation

All data were thoroughly cleaned and assessed for accuracy. Responses for all survey questions were investigated for both outliers and impossible values (e.g., the value “10” for the question, “What is your gender?”). In these instances, such impossible values were generally recoded as “missing” data unless correct data could be obtained through other available sources.

Additionally, copies of statistical software syntax were maintained and saved to document any corrections to the data and to allow replication of results.

Missing data were not imputed. Only participants with both baseline and follow-up data were used in analyses. Prior to conducting the main analyses, distributional assumptions for the outcome variables were assessed. This was particularly important for continuous outcome variables. In cases where the distribution of the outcome was non-normal, data were either transformed according to the appropriate method or were dichotomized and used in a logistic regression framework.

As noted previously, we observed imbalance between groups on several key baseline measures. This was potentially problematic, as these pretreatment differences could introduce bias to impact estimates (Cefalu, Shuangshuang, & Martin, 2015). In response, we estimated propensity scores and applied weights to the comparison group in order to achieve balance on these measures. To achieve this, we used the Toolkit for Weighting and Analysis of Nonequivalent Groups developed by the Rand Corporation for the R and STATA statistical software programs. This package utilizes generalized boosted regression to estimate propensity scores and assign weights to the counterfactual condition to estimate the average treatment effect on the treated. We performed this analysis two ways: 1) using all baseline measures and 2) omitting baseline incarceration measures. We also performed diagnostic checks for the two approaches to assess balance, including producing an optimization plot, a balance table, and a standardized effect size plot. Ultimately, the latter approach was selected for use in estimating primary and secondary impacts because it achieved a better degree of balance between the groups. To illustrate, the standardized effect size plot yielded when omitting the incarceration covariates showed large reductions in effect sizes for most measures (i.e. the difference in score between the two groups). The number of variables showing a significant baseline difference was reduced to 1. Importantly, though the difference for this variable remained significant, its standardized effect size was reduced. Two measures saw an increase in effect size, but this slight increase was not statistically significant in either instance.

A second analytic sample was constructed due to missingness associated with parental role satisfaction, which is related to a primary research question. This scale was constructed of three items: 1) How often you felt happy being with [CHILD 1] in the past month (n=86); 2) How often you felt very close to [CHILD 1] in the past month (n=84); and 3) How often you tried to comfort [CHILD 1] in the past month (n=110). However, only portion of participants responded to all items. Consequently, applying listwise deletion to construct this multi-item measure resulted in an analytic sample size of 76. This is an appropriate sample construction according to

the approved impact analysis plan, as imputation was not permitted unless 20% or fewer of the scale items were missing. Notably, this was not possible for a 3-item scale.

Table B.1. Unweighted summary statistics of key baseline measures and baseline equivalence across study groups, for individuals completing the six-month follow-up interview (n = 211)

Baseline measure	Intervention mean or %(standard deviation)	Comparison mean or %(standard deviation)	Intervention versus comparison mean difference (p-value of difference)	Standardized effect size
Age (years)	37.58 (9.16)	35.88 (7.47)	1.70 (0.140)	0.185
Race (White)	100.0%	95.7%	4.3% (0.043)	cannot calculate
Education completed (years)	11.15 (1.77)	11.62 (1.59)	-0.47 (0.042)	-0.267
Age of first arrest (years)	19.83 (7.56)	19.10 (5.20)	0.73 (0.405)	0.097
Total lifetime arrests	21.88 (29.68)	22.33 (36.26)	-0.45 (0.923)	-0.015
Parental role satisfaction (range 3-12)	11.88 (0.41)	11.72 (0.85)	0.16 (0.288)	0.384
Has a job (yes)	13.7%	34.0%	-20.3% (0.001)	-0.590
Relationship status (in a relationship)	46.2%	53.2%	-7.0% (0.311)	-0.141
Past month in-person contact with children (yes)	32.4%	51.8%	-19.4% (0.008)	-0.414
Past month other contact with children (yes)	49.0%	56.6%	- 7.6% (0.304)	-0.152
Conflict Resolution (range 1-3)	1.83 (0.80)	1.68 (0.71)	0.15 (0.312)	0.188
Previous 30-day participation in education or job training programs (yes)	16.2%	1.1%	15.1% (0.000)	0.410
Mental health distress (range 6-30)	13.32 (5.94)	11.72 (6.46)	1.60 (0.066)	0.268
Sample size	117	94	n.a.	n.a.

n.a. = not applicable.

Notes: Standardized effect sizes for continuous variables are Hedge's g coefficients (calculated by dividing the differences in means by the pooled standard deviation), while effect sizes for dichotomous variables are Cox Indices.

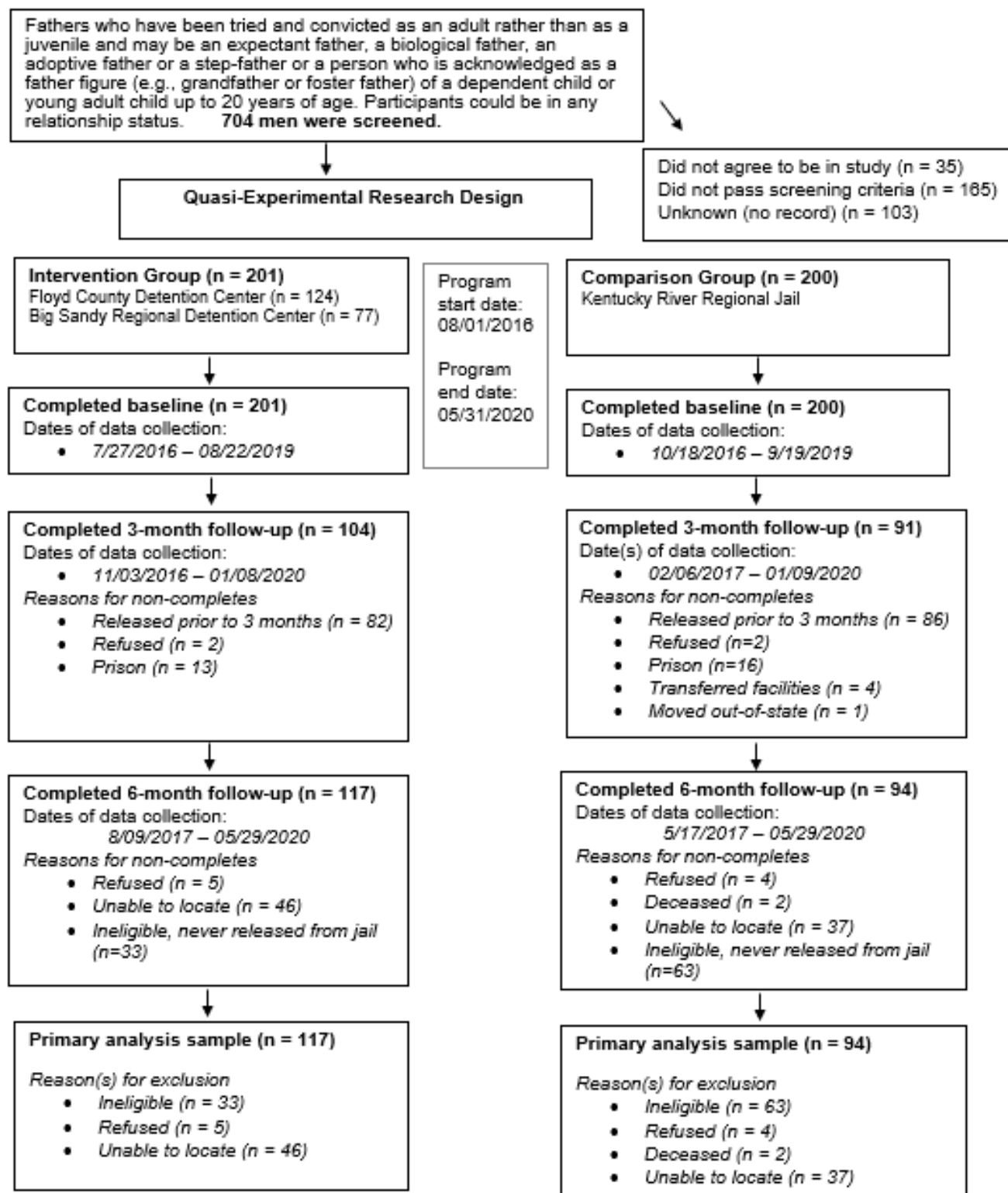
Table B.2. Unweighted summary statistics of key baseline measures and baseline equivalence across study groups, for individuals completing the six-month follow-up interview and provided a response to the parental role satisfaction scale (n = 76)

Baseline measure	Intervention mean or % (standard deviation)	Comparison mean or %(standard deviation)	Intervention versus comparison mean difference (p-value of difference)	Standardized effect size
Age (years)	36.32 (7.30)	35.99 (7.42)	0.33 (0.846)	0.045
Race (White)	100.0%	95.3%	4.7% (0.154)	cannot calculate
Education completed (years)	11.33 (1.34)	11.49 (1.86)	-0.16 (0.672)	-0.116
Age of first arrest (years)	19.67 (4.12)	19.60 (6.58)	0.07 (0.960)	0.015
Total lifetime arrests	28.88 (48.12)	21.19 (33.58)	7.69 (0.432)	0.160
Parental role satisfaction (range 3-12)	11.88 (0.41)	11.49 (0.85)	0.39 (0.290)	0.380
Has a job (yes)	15.2%	39.5%	-24.3% (0.015)	-0.670
Relationship status (in a relationship)	63.6%	74.4%	-10.8% (0.320)	-0.221
Past month in-person contact with children (yes)	100.0%	100.0%	0.00% (n.a.)	cannot calculate
Past month other contact with children (yes)	97.0%	86.0%	11.0% (0.078)	0.627
Conflict resolution (range 1-3)	1.91 (0.83)	1.59 (0.67)	0.32 (0.150)	0.378
Previous 30-day participation in education or job training programs (yes)	21.2%	0.0%	21.2% (0.004)	0.511
Mental health distress (range 6-30)	13.30 (6.33)	11.88 (6.75)	1.42 (0.346)	0.346
Sample size	33	43	n.a.	n.a.

n.a. = not applicable.

Notes: Standardized effect sizes for continuous variables are Hedge's g coefficients (calculated by dividing the differences in means by the pooled standard deviation), while effect sizes for dichotomous variables are Cox Indices.

Figure B.1. CONSORT diagram for MCCC's ReFORM program impact evaluation



C. Impact Estimation

Regression analyses assessed the influence of the intervention on each primary outcome. Binary logistic, or logit, regression was employed for models with dichotomous dependent variables (i.e. yes/no outcomes), while those measured as multi-item scales were treated as continuous and analyzed using linear regression. All regression models controlled for baseline measures of outcome variables as covariates and included weights derived from estimated propensity scores.

Findings for nominal outcomes of interest are reported as average adjusted predictions (AAPs), which refer to the probability that the outcome will occur for participants in each condition (i.e. intervention or counterfactual), adjusting for the other covariates in the model (Williams, 2012). Average marginal effects (AMEs) are also reported, which are the difference in the likelihood of an outcome between the two conditions. Findings for continuous outcomes of interest are presented as adjusted mean differences between intervention participants and those in the comparison group.

The following equations represent the models used to estimate impacts for the three primary outcome measures:

$$\text{predicted (Parental Role Satisfaction)} = \beta_0 + \beta_1(\text{Condition}) + \beta_2(\text{Age}) + \beta_3(\text{Education}) + \beta_4(\text{Age at First Arrest}) + \beta_5(\text{Lifetime Arrests}) + \beta_6(\text{Baseline Parental Role Satisfaction}) + \varepsilon$$

$$\text{logit (Employment Status)} = \beta_0 + \beta_1(\text{Condition}) + \beta_2(\text{Age}) + \beta_3(\text{Education}) + \beta_4(\text{Age at First Arrest}) + \beta_5(\text{Lifetime Arrests}) + \beta_6(\text{Baseline Employment Status})$$

$$\text{logit (Relationship Status)} = \beta_0 + \beta_1(\text{Condition}) + \beta_2(\text{Age}) + \beta_3(\text{Education}) + \beta_4(\text{Age at First Arrest}) + \beta_5(\text{Lifetime Arrests}) + \beta_6(\text{Baseline Relationship Status})$$

The analytic methods used to answer secondary research questions that compare the intervention and counterfactual conditions mirror those employed to address the primary research questions. The remaining secondary research questions focused on descriptive outcomes for intervention participants. Data were collected from the intervention group at six-months post-release from incarceration. Descriptive statistics were used to address the fifth and sixth secondary research questions, while regression was employed to examine the seventh.